BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA COLUMBIA, SOUTH CAROLINA

HEARING #11-11252 DECEMBER 21, 2011 10:40 A.M.

DOCKET NO. 2011-8-E:

Progress Energy Carolinas, Inc. - 2011 Integrated Resource Plan

DOCKET NO. 2011-10-E:

Duke Energy Carolinas, LLC - 2011 Integrated Resource Plan

ALLOWABLE EX PARTE BRIEFING

REQUESTED BY SOUTHERN ALLIANCE FOR CLEAN ENERGY, SOUTH CAROLINA COASTAL CONSERVATION LEAGUE, AND UPSTATE FOREVER - Progress Energy Carolinas, Inc.'s and Duke Energy Carolinas, LLC's 2011 Integrated Resource Plans

TRANSCRIPT OF PROCEEDINGS

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REPORTER'S CERTIFICATE

Please note the following inclusion(s)/attachment(s) to the record:

• PowerPoint presentation (PDF)

Please also note references to:

- 2011 Duke Integrated Resource Plan (Public Version) and Comments re Duke IRP submitted by SACE, SCCCL, and UL filed in Docket 2011-10-E
- 2011 Progress Integrated Resource Plan and Comments re Progress IRP submitted by SACE and SCCCL filed in Docket 2011-8-E

PROCEEDINGS

CHAIRMAN HOWARD: We'll call this briefing to order, and I'll ask Attorney Melchers to read the docket.

MR. MELCHERS: Mr. Chairman, Commissioners, we're here pursuant to a Notice of Request for Allowable Ex Parte Briefing requested by the South Carolina Coastal Conservation League, Southern Alliance for Clean Energy, and Upstate Forever.

This briefing was rescheduled for today,
Wednesday, December 21st, in the Commission's
hearing room at 10:30. The subject matter to be
discussed at the briefing is: Progress Energy
Carolinas, Inc.'s and Duke Energy Carolinas, LLC's
2011 Integrated Resource Plans. The associated
Commission Docket Numbers are 2011-8-E and 2011-10E.

Thank you, Mr. Chairman.

CHAIRMAN HOWARD: Thank you, Mr. Melchers.

And who represents the Southern Alliance for Clean Energy, South Carolina Coastal Conservation League, and Upstate Forever?

MR. HOLMAN: Commissioner Howard, members of the Commission, Blan Holman here for the Intervenors.

1	CHAIRMAN HOWARD: Mr. Holman, glad to have you
2	with us.
3	MR. HOLMAN: Glad to be here. Thank you.
4	CHAIRMAN HOWARD: Office of Regulatory Staff?
5	MS. HUDSON: Good morning, Mr. Chairman, Vice
6	Chairman, members of the Commission, Mr. Melchers.
7	My name is Shannon Hudson, and with me is a
8	Courtney Edwards. We're here on behalf of the
9	South Carolina Office of Regulatory Staff.
10	CHAIRMAN HOWARD: Thank you, very much. Mr.
11	Holman?
12	[Reference: PowerPoint Slide 1]
13	MR. HOLMAN: Thank you, Commissioner Howard.
14	I'm here, as was said, on behalf of the Southern
15	Alliance for Clean Energy, Coastal Conservation
16	League, and Upstate Forever, and we appreciate the
17	opportunity to be with you today. I understand
18	that this is the last hearing in a line of many
19	hearings, and we're also before lunch, so I think
20	we've got our work cut out for us to make this
21	entertaining and informative, and I think you'll
22	find it will be both.
23	With me is John Wilson, who is the director of
24	research for the Southern Alliance for Clean
25	Energy. You've heard from Mr. Wilson before. He

1	got his undergraduate degree at Rice University in
2	Texas, and I believe it's in Physics and in
3	History. And then he went on to a school in
4	Cambridge, Massachusetts, to get his Public Policy
5	degree and he's been focusing on environment and
6	energy issues for the last 20 years. He's been
7	working in five different states across the
8	Southeast, and I think you're going to find what he
9	has to say very informative today, about these
10	IRPs. And without further ado, I'll turn it over
11	to him.
12	CHAIRMAN HOWARD: Good to have you with us,
13	Mr. Wilson.
14	MR. WILSON: Thank you, Chairman Howard. And
15	Commissioners, Mr. Melchers, it's a pleasure to
16	speak with you again. And I assume this is your
17	pleasure, that I speak from right here?
18	CHAIRMAN HOWARD: Yes.
19	MR. WILSON: Thank you.
20	[Reference: PowerPoint Slide 2]
21	This morning, I want to talk to you a little
22	bit about the Progress and Duke Integrated Resource
23	Plans. And just to sort of start off our framework
24	from the position of what these plans are about and
25	what we're trying to accomplish here, you know, we

understand very clearly that the purpose of an Integrated Resource Plan is to meet the electric service needs of South Carolina's electric customers, and really the systems of both utilities across two states in a reliable and economic manner.

And we believe that an IRP should identify and consider a range of energy resource alternatives and also to consider all those resources on an equal basis, whether those resources are power plants, or whether those resources are opportunities for energy efficiency or other resources that are located at the customer's site.

[Reference: PowerPoint Slide 3]

So what I want to speak with you today about, you know, obviously, the Duke and Progress resource plans are among the most analytically based and detailed resource plans across the Southeast.

Nevertheless, there are several things that we see in these plans that are not dealt with. These are all questions that I think are dealt with by utilities across the country -- not necessarily every utility in every resource plan, but certainly many of them.

If you were to ask what are the benefits of

doing more energy efficiency than are included in the resource plans, Duke Energy had some data on that but it's not analyzed and presented in the way that I'll cover it today, and Progress doesn't look at any higher levels of energy efficiency than is

If you were to ask what the optimal level of the energy efficiency resource is, there's no analysis to support that, that is equivalent to the

If you were to ask about the ancillary benefits of renewable energy, that's not an issue that either resource plan considers.

If you were to ask about the economics of the scrubbed coal units in these resource plans, that's not something that the utilities are currently presenting to you alternatives on.

And if you were to look at the implications of cost escalation and uncertainty for nuclear power plants, those are also questions that are not effectively asked in either resource plan.

And finally, when you're looking at the economic impacts of resource alternatives, that's something that we don't see being dealt with in the

So I'm going to focus on these things. I do want to acknowledge that there's a lot of useful and very good analysis in these plans, but of course it's a little bit more interesting I think to focus on the areas where we've got some suggestions for the utilities as to how they could improve their practices.

So I'm going to start off by looking at the energy efficiency analysis.

[Reference: PowerPoint Slide 4]

And what I wanted to do first is sort of put in perspective the scale of these resource plans. And if you look there, what I've done is I've compared the Duke and the Progress IRPs down there on the bottom right, and also for your reference here in South Carolina I've added the SCE&G IRP projections.

And that is the amount of energy savings projected cumulatively through 2025 of the resource plans, compared to their retail sales. And I've compared that to a "Top 10" state analysis. That's the #10 state in the country, annual savings estimates, extrapolated out through 2025. So just for your reference, that's what some of the leaders in the country are accomplishing.

1	And you'll see there a couple of other lines.
2	One of them is the Duke High DSM, and that refers
3	to Duke's case where they analyzed a more
4	aggressive level of energy efficiency and demand-
5	side generally, demand-side resources, including
6	load management and other resources. So I'm going
7	to be talking a lot about that case. And you can
8	see there that results in much higher levels of
9	energy savings than the case that's included in
10	their optimal plan in the resource plan. And then
11	you can also see there the impact of if of the
12	merger settlement agreement, which you may be aware
13	of that we've reached with that some of our
14	organizations have reached with Duke and Progress
15	in the merger docket in front of you, and that
16	explains, or that sort of illustrates the potential
17	impacts of that settlement agreement on the energy
18	efficiency plans. So that sort of hopefully puts
19	all this in perspective.
20	[Reference: PowerPoint Slide 5]
21	So what I'd like to start with is to sort of
22	lay out for you what are the implications of these
23	levels of energy efficiency. And I want to start
24	out by just sort of pointing out that the Duke case
25	Duke, of course, is the only one of the two

utilities that analyzes a higher level of energy efficiency. Based on the data in that plan, it results in a lower revenue requirement, lower rates, and lower risks for customers. And I'm going to talk through each of these points.

[Reference: PowerPoint Slide 6]

so first, looking at this High DSM case, energy efficiency reduces system costs. And you can see there, this is the total revenue requirement over the life of the plan for -- under a wide range of scenarios that Duke analyzed for their resource plan. And you can see there the base case on the top, and then the bottom is the high case with the more aggressive level of DSM, and that corresponds to that line I showed you in the graph earlier. And you can see that the total revenue requirement associated with all of the High DSM cases is about \$5½ billion, or more, less than the corresponding plan with the lower level of efficiency. So this is a lower-cost resource if it can be implemented and delivered to the customers.

[Reference: PowerPoint Slide 7]

Second thing I want to point out is the rate impacts of these plans. And this is something that often comes up in the Southeast as a perception,

1	that, "Sure, energy efficiency is cheaper, but it's
2	going to result in higher rates and it's going to
3	basically be a problem for people who are already
4	efficient," for example. And this is simply also
5	not supported by a careful looking-at-the-data. In
6	this case, I've compared two of the plans that you
7	just saw in that previous graph, and you can see
8	the cost there for each of the plans, and then the
9	cost per year, and then the average retail sales,
10	and that equates out to a couple of rates. Now
11	this is a comparative analysis; there's other
12	elements to rates that are here. Obviously, Duke
13	is not forecasting that its electric rates are
14	going to drop to 2.7 cents a kilowatt-hour. I'm
15	sure the Commission would love to see that. But
16	this is for the costs that are analyzed in the
17	resource plan. So, you can see the difference
18	between the two plans; that is a relevant figure.
19	And you can see that, in this case, it leads to a
20	small reduction fairly small reduction in
21	rates, over time.
22	And that, I think, should be considered pretty
23	good news. Now, exactly how that gets delivered
24	and that sort of thing is a complex program-
25	development question. But this is the kind of

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analysis that we see done all across the country, and the lesson from utilities in many, many states that do these kind of analyses is that energy efficiency tends to hold rates flat or potentially drive them downward, and I think that's the message you should take away from that, not the exact numbers here, because those are subject to a lot of assumptions and forecasting analysis.

[Reference: PowerPoint Slide 8]

Third point here is that energy efficiency helps reduce price risk for customers. And for -so, when you look at situations where prices go up -- for instance, natural gas prices exceed the base-case forecast, or CO₂ prices exceed forecasts -- the question is, what's that going to do to the rates? And it turns out that, when you look at the same plans under these more extreme scenarios of cost, that the energy-efficiency-heavy plans, the High DSM case with more energy efficiency, saves customers an additional \$1-\$2 billion over the savings that they already offer. And that's a pretty substantial amount when you compare it to, for example, the cost savings that some of the supply-side alternatives offer when they are compared to each other. So if you compare gas to

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nuclear and you say, "What happens when gas prices go up," the cost savings associated with the nuclear option over the gas option in a higher-gasprice environment are smaller than these cost savings. And that makes sense, because there's no cost associated with energy efficiency; once it's delivered, the cost saving is right there.

The other thing that's worth pointing out here is that, you know, certainly one of the risks and one of the reasons I think that utilities are a little bit concerned about relying heavily on energy efficiency, is that they're concerned that, "Sure, all these projections are nice, but maybe customers are not going to buy into these energy efficiency programs, and they're going to be a lot more expensive to deliver." And, you know, that is a legitimate risk, just as it is with a nuclear power plant or any other energy resource, that you project a certain cost, and when you actually go out and try to build that resource -- whether it's a power plant or an energy efficiency power plant -- that the costs are going to be higher than you And the question is, what is that risk?

Unfortunately, that's not directly analyzed in the Duke plan, but through kind of doing some

1	comparative benchmarking of the costs within it, I
2	can tell you that the program cost risk of
3	efficiency is substantially lower than the program
4	cost risk associated with a nuclear power plant.
5	So for example, if you go back to this chart
6	[Reference: PowerPoint Slide 6]
7	and you imagine a scenario where you take
8	the base-case excuse me the high-case DSM,
9	and you say, "What if the costs were double what we
10	expect they would be here," that would still not
11	increase the costs nearly as much as a 25 or 50
12	percent increase in nuclear power plant costs, and
13	that's just simply because the relative costs of
14	nuclear power, of building a gas-fired power plant,
15	are much higher than the costs associated or
16	forecast to be associated with building an energy
17	efficiency power plant.
18	[Reference: PowerPoint Slide 9]
19	So, that's sort of a quick summary of kind of
20	the benefits of energy efficiency and how they play
21	out in that resource plan. What I'd like to turn
22	to now is some specific concerns that we have with
23	the Duke efficiency resource, as it's laid out in
24	the plan.
25	First of all, a big compliment for Duke

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Energy: Their actual impacts in 2010, as you see there, were much higher than they had forecast in their resource plan. They had forecast around about 125 gigawatt-hours, and you can see the well over 500 gigawatt-hours in annual impacts. And those are savings that will continue for years to come. So that's a really impressive achievement by Duke Energy.

However, in this plan, in this 2011 IRP, they revised their forecast for energy efficiency -- and primarily in the near term -- and it was an 11 percent reduction in energy efficiency. It's not clear to me whether this result reflects some change in their forecasting methods, or their program plans. I've spoken to some staff at Duke Energy, but it's still, frankly, a little confusing to me as to what this reflects. And, you know, I would just say that these kind of changes, I don't consider this to be reflective of sort of the best practices in program management and planning. You don't see these kind of changes in near-term forecasts from other utilities, unless there's a really clear cause-and-effect, and I don't, frankly, understand what that is.

The other thing we've continued to be

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concerned about is that Duke continues to have fairly low efficiency impacts past 2021. And you can see that here: They do have at least some impacts now past 2021, whereas in the 2010 IRP they didn't have any. So they've sort of put some efficiency in that period, and that's an improvement, but it's certainly not reflective of best practices, as we see it.

[Reference: PowerPoint Slide 10]

So, for example, here's a nice example from PacifiCorp's 2008 Integrated Resource Plan, and you can see there that they continue to grow the efficiency resource through 2030. And the question is, you know, why wouldn't you have that in there? And a pretty good explanation for that is that, I think, the staff -- at least, my impression is -the staff at Duke Energy are concerned that the programs just might not be there, that there might not be technologies, that there might not be opportunities available in that decade. They don't -- at least, they don't know what they are, they don't know what they'll be. And I think that's not reflective of the best approach that many utilities across the country are doing, which is to say, "Sure, we don't know exactly what technologies

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we're going to be implementing in 2025, 2026. we know from 20 years of program experience all across the country that new technologies do come up; that even after the first lighting retrofit, you can go back into a facility 10 or 15 years later, and do another cost-effective lighting retrofit right back on top of the first one," or whatever the technology may be. The energy efficiency resource just keeps coming, and that's what everybody has proven over the past decades, and there's no reason to believe that it won't be the case. And I think you can compare that to the supply side where, you know, typically you will see forecasts for power-plant efficiency improvements. You know, there will be a plan to build a new power plant in 2020, 2023, but you might not know exactly what technology is going to be selected. You don't know who is going to build that combined-cycle unit, or you don't know who's going to deliver that new transmission technology. But you do know that it will be there; you do know that innovation continues, that engineering and resource planning and all of those things combine together to drive the resources that we're going to need in that And to simply assume in a resource plan decade.

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1 that it's going to cease or nearly cease, I think, is a mistake. 2 [Reference: PowerPoint Slide 11] 3 In contrast, Progress Energy's plan does 4 include energy efficiency resources, and that's one 5 thing that I think they do get right in their 6 resource plan, is they have energy efficiency 7 resources growing all the way through 2030 in their 8 plan. 9 Another thing that's good about the Progress 10 11

Another thing that's good about the Progress

Energy resource plan, like Duke, is that they did

exceed their goals in 2010 -- not by quite as much

as Duke did, but I do want to acknowledge that

they're overachieving their goals, and that's a

great thing for customers and for the whole system.

Progress Energy's efficiency resource forecast is about the same in their 2011 IRP as their 2010. It was slightly decreased, but -- and I'm not real clear on what caused that, but it's not a significant decrease. And the only thing really is that, unfortunately, the analysis that I just showed you of the Duke High DSM case, which I want to compliment Duke for doing -- even though I disagree with the fact that they didn't select that resource case -- Progress doesn't do a comparable

analysis, so the rate impacts, the cost impacts, the risk impacts, I can't explain that to you for the Progress system like I can for the Duke system, simply because the data aren't there.

[Reference: PowerPoint Slide 12]

Another thing I want to comment on, in the ex parte briefing that you had with the Progress Energy staff, there were some concerns that were discussed about rates and fairness. I think one of the Progress Energy staff members talked a little bit about his grandmother and some concerns there. And I do want to kind of respectfully disagree with some of the concepts behind that conversation, and I want to talk through that a little bit.

As I showed before, with the more aggressive Duke plan, it has the tendency to hold rates steady or even drive them down. And I think there was a concern that energy efficiency programs -- as wellmeaning as they are -- can drive up rates for nonparticipants. And I think that that's -- that really comes from a misapplication of the understanding of the RIM Test score. And for those of you who don't spend as much time staring at energy efficiency plans as I do, I'll just kind of remind you that the RIM Test score is the Rate

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Impact Measure, and it's a measure of the costs -excuse me -- the benefits of energy efficiency, in
terms of reducing system costs, compared to the
costs of the program, plus the lost revenues.

And what I think is often done is, there's an assumption that a RIM Test score of one means that the rate impact of an efficiency program is neutral, that it neither increases nor decreases rates, and I think that's a misunderstanding, because the RIM Test is really comparative; it's really more a way to compare one efficiency program versus another. So, for instance, if you have a lighting program where you're sending customers coupons versus another lighting program where you're maybe doing -- visiting the facility and installing it directly, those two programs may result in different outcomes and have different RIM Test scores. They may affect the same resource. So it may be useful to compare them and say, "Okay, they're both going to have the same outcome, but which one is going to have the least impact on rates?" That's a really good way to use the RIM Test.

Saying that a RIM Test score of one is rateneutral, and a RIM Test score of less than one

1	increases rates, and a RIM Test score of more than
2	one increases rates, can be misleading. And the
3	reason for that is that the RIM Test depends on
4	whether avoided costs are an accurate measurement
5	of the system benefits and energy efficiency.
6	Certainly, the avoided-cost method is a useful way
7	to measure the benefits of energy efficiency, but
8	is it exactly on-point? And I think if, you know,
9	you talk to our friends from ORS here and ask them
10	sort of, "Is the RIM Test the same method that you
11	use to calculate rates," the answer is no. There's
12	a lot of differences in the way that the RIM Test
13	works, and an actual rate-case methodology works.
14	And certainly the RIM Test is a good indicator, but
15	it's not sort of a simplified rate-setting test;
16	otherwise, you'd say, "Well, let's use the RIM Test
17	methodology to set rates." And no one would bring
18	that up, because that wouldn't make any sense.
19	So what I would suggest is that you can
20	actually have a RIM Test score of less than one
21	that results in rates being reduced. And in fact,
22	I just showed you a case of that, the Duke case
23	where I showed that, under the IRP analysis, the
24	higher level of efficiency tends to reduce rates.
25	Duke's current RIM Test score for their programs

1	and I don't know the exact number, but it's about
2	.75. So if Duke is having a RIM Test score of .75,
3	and that's supposed to drive rates up, how is a
4	more aggressive efficiency program that does even
5	more efficiency tend to drive rates down? And it
6	seems like a contradiction, and I would just
7	suggest to you that it's not. The point is that if
8	you had a RIM Test if Duke could revise their
9	programs and get the RIM Test score up from .75 to
10	one, then its efficiency programs would drive rates
11	down even more. So it's directionally correct, but
12	just remember that that 1.0 is not quite the magic
13	number that it is for some of the other cost-
14	effectiveness tests.
15	Now why is this the case? Why is energy
16	efficiency so good at reducing rates over the long
17	term? And the reason is that it's much cheaper
18	than generation.
19	You had an exchange with the Progress Energy
20	staff, I believe, and I think one of the
21	Commissioners maybe was mentioning generation costs
22	of \$600-\$1,000 million per kilowatt or, excuse
23	me per gigawatt, or \$600 to \$1,000 a kilowatt.
24	And in comparison, a gigawatt of energy efficiency
25	is less than \$200 million, and that's based on

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Progress's recent costs, compared to base-load generation, of course, which is even much more expensive. And obviously that's because its operating costs are fairly low. But you can see that energy efficiency is really, by far, the least-cost system resource, and so going after it is absolutely something you want to do to the highest level, until its costs start to get beyond

[Reference: PowerPoint Slide 13]

And that's really the question, is what is the optimal level of energy efficiency? Is it the base case in the IRP, as you've heard me suggest? I don't think so. Is it a higher level, such as Duke's High DSM case, or maybe the level that's reflected in our settlement agreement? There's no way to know, because neither utility conducts an analysis to determine the optimal level of investment in energy efficiency.

In contrast, you see a lot of optimization on the supply side. You see that they'll test a case of nuclear units being built in one year versus another, and they'll look at how that affects the scheduling of other supply-side resources. They'll look at moving the CT units or the combined-cycle

1	units around year-to-year, but you do not see a
2	comparable effort being made on the demand-side
3	resources to see whether rescheduling or advancing
4	the efforts on those resources is being done. It's
5	just, that analysis is not present. And so, that's
6	really kind of the fundamental reason that we say
7	energy efficiency is not being evaluated in either
8	Duke's or Progress's resource plans on an
9	equivalent basis to the supply-side resources. You
10	can't do it exactly the same way. I don't want to
11	suggest that it should be treated exactly as a
12	supply-side resource. There's a lot of differences
13	in the way that efficiency resources are built and
14	constructed, and of course, they drive down demand,
15	so there's a degree of complexity there in the
16	analysis that's not the same as when you're simply
17	swapping out one power plant for another. But
18	performing that kind of an analysis to optimize
19	energy efficiency is a critical step in a really
20	effective resource plan, and it's one that
21	utilities in other parts of the country often do.
22	[Reference: PowerPoint Slide 14]
23	Now I'd like to turn to some other resources
24	in the Duke and Progress plans at this point. I'd
25	like to get going with a little bit on renewable

energy. This was something else that kind of got some interesting discussion with the Progress folks, and I kind of regret I wasn't able to reschedule my travel plans when I learned that Duke was going yesterday, so I could've been down to hear what you might've talked about with them, so you'll have to forgive me for that.

But one of the things that was of concern was that renewable energy -- wind and solar -- are intermittent and can't be dispatched. And I think one of the things that's really fundamentally missing from the resource planning approach of the utilities is a consideration of the ancillary benefits of renewable energy and demand, particularly on the demand side. And so, for example, you can't site a combined-cycle plant at a customer's location. You know, you're just not going to do that. But you can site solar resources within the grid, in the distribution system, and that can help reduce line losses. Those are really significant benefits of renewable energy that can be replicated.

But what I wanted to focus on is sort of this intermittency issue. And it's true that wind -- you can't make wind blow harder than it's blowing.

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f a single utility in the country to turn the wind up. But what you nd that's very important to recognize s have a curtailment value, and you down. When it's blowing, you can rbine blades very quickly, and with operational impact to the system. comparison to the fossil resources. ht now on most utilities' systems -e a lot of wind, that is -- the downen load drops, are handled with es being backed off very quickly. you to run a certain kind of unit, a know, whatever kind of units the its system that can be ramped down s to have on-line at that moment. ind, and if the wind is blowing, they have those resources on-line. They lower-cost resource at that time, now that they've got the wind and the tail it on short notice. And there's nd maintenance impact of these n the wind turbines. In contrast, if suddenly -- if you've got an older r example, and you need to ramp it

down very quickly, there's going to be a pretty substantial impact on that unit's performance -- either its environmental performance, or maybe it's going to create, you know, over time an increase in operating and maintenance costs.

So, you know, it's certainly not a huge, you know, game changer, but it is an important value that wind offers to the resource. And I think that when we talk about wind and sort of talk about the negative characteristics of the intermittency, I think there needs to be a recognition of the positive impacts of it, as well: that having that resource and the ability to control its delivery to the system on a very short timeframe is a very unique resource in that sense.

Another contrast is nuclear dispatch. You know, I mean, that is -- you know, there's a lot of concern, you know, "Well, you can't really dispatch wind, so therefore it's a resource that should be valued less." But the reality is that there's resources that people view as very desirable on the system that have also limited dispatchability.

Nuclear is one of those. If you were to use nuclear in a very high dispatch situation, that would mean you would reduce its delivery of power

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to the grid, and you would increase the need to spread those capital costs over a smaller amount of resource delivery.

So I think that just kind of keeping in mind

So I think that just kind of keeping in mind that this concept that not being able to dispatch wind has a little bit more depth to it than maybe, sort of, we think at first, when we just sort of think about the fact that the wind blows when it blows.

[Reference: PowerPoint Slide 15]

Another resource, obviously, that's discussed a lot in the resource plans for Duke and Progress is coal retirements. And we are real pleased that both Duke and Progress have been very proactive in committing to the retirement of their unscrubbed coal-fired units. I want to compliment them for that. They have thought through the economics of those units very carefully and recognized that keeping those older units on-line is not desirable from a customer point of view, certainly not from an environmental-health perspective. And replacing those resources with cleaner resources, like energy efficiency and others, is in everyone's interests.

What we don't see in the resource plans for Duke or Progress is a look at the consideration of

1	the retirement and repowering of scrubbed coal
2	units. And this is significant because about half
3	of the costs that are needed to meet public health
4	protection requirements over the next decade are
5	still applicable to many of these scrubbed coal
6	units. And so I would just encourage you to
7	recognize that, you know, this sort of
8	scrubbed/unscrubbed distinction is very relevant,
9	because that's the single biggest cost category for
10	some of these plants, but it's not the only cost
11	category, and we really would like to see the
12	utilities take a closer look at whether some of
13	their older scrubbed units maybe are also not in
14	the customers' interests to keep operating.
15	[Reference: PowerPoint Slide 16]
16	Another point we discuss in our comments
17	and I won't go into this in a lot of detail is
18	it's our view that Duke has a lot of excess
19	capacity in its resource plan, due to its planning
20	practices. And in this case, some of their
21	planning practices differ significantly from the
22	way Progress Energy is doing it, and it results in
23	a higher capacity need. And fortunately I think
24	one of the issues is going to be resolved; the
25	North Carolina Commission is requiring Duke and

Progress to prepare a reserve margin study for the next IRP, and so we're pleased to see that is in the works. But, you know, we would like to see some of these other issues addressed.

You know, we just point out that carrying excess capacity -- I think the utility can certainly represent that that gives them extra flexibility in how to operate their system, but there's a cost to customers for having that excess capacity.

[Reference: PowerPoint Slide 17]

Another point is related to nuclear power plants, regarding the timing and the cost.

Regarding the timing, you know, we certainly see these as being pushed out a little bit in the more recent IRPs versus a couple of years ago. We're now seeing this in the 2020s. Even still, these plans that they are -- the resource plans that we are reviewing at this point don't account for issues such as issues that may come up in the construction process that may require substantial delays, such as have happened in the past at many plants. The license schedule still remains uncertain, and supply chain delays. We don't see these uncertainties really dealt with in the

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resource plans, explicitly.

[Reference: PowerPoint Slide 18]

On the cost escalation, this is a really interesting area. So, in the Duke and Progress IRPs, we have a different consideration of how sensitive or how much potential there is for cost escalation. In Duke's case, the highest level that they consider is a 20 percent cost escalation; in Progress' they consider a 30 percent. But between the 2010 and 2011 IRPs, Progress increased its cost estimate by 25 percent. And you can see I sort of spliced together the two graphs here to show how that cost increase is reflected in this figure from the two years' IRPs. And you can see there's been some adjustment to costs on coal and gas in that IRP, but nuclear was the cost that really went up.

So this 25 percent cost increase in the Progress plan almost hits the full value of their sensitivity analysis that they performed, which was 30 percent. So, you know, we would certainly encourage the utilities to update their analysis in their next IRP with better cost estimates and to widen the cost sensitivity range well beyond 30 percent.

[Reference: PowerPoint Slide 19]

One of the things that Blan mentioned in introducing me is that we are involved in resource planning all across the Southeast. I'm not going to go into great detail about the TVA plan, but I did just want to point out that the range of sensitivities that the TVA IRP -- which we were heavily involved in -- is much greater than what either Duke or Progress look at in their resource plans. So these are a lot of potential issues that could be explored in great depth, and unfortunately, you know, we don't see that information, and so we can't sort of discuss the implications of that with you in this context.

[Reference: PowerPoint Slide 20]

A final point I want to make is, in your order from 1998, Commissioners, one of the things that you suggested ought to be in resource plans is consideration of the economic consequences of that plan, and, you know, it is qualified by saying "to the extent practicable." And we've been pointing out for a couple of years that there are modeling tools that are available to the utilities to consider the economic impacts of different resource plans, different levels of investment in certain types of power plants, energy efficiency, renewable

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energy, however the different mixes are constrained.

And I've got up here just an example of an output from this REMI Policy Insight model from Wisconsin, where you can see that there was a -- you know, they were able to look at the job impacts, for example, of Wisconsin's renewable energy and energy efficiency programs. TVA is also looking at using this model for its resource planning process.

So, I think you can see that this is a way to look at, sort of, things like energy efficie---excuse me -- what will be the sales impact of --excuse me -- the impact of energy policies on business sales, on gross regional product, on real after-tax income, on jobs. And these are all things that are of interest. Obviously, you know, the sort of purpose of the IRP that I laid out at the beginning is to look at the impacts of the different resource plans on customer costs, but you have a broader public interest in mind when you're looking at these resource plans, as well, and this would be very useful information, and we would encourage the utilities to consider applying these models and thinking through what they can -- what

1	they can share with you as to the implications of
2	their resource plan choices for the economy and for
3	the daily lives of people in South Carolina and
4	across the region.
5	And with that, thank you very much for the
6	opportunity to sort of go through our comments and
7	offer our perspective on the resource plans.
8	[Reference: PowerPoint Slide 21]
9	CHAIRMAN HOWARD: Thank you, Mr. Wilson.
10	Quite interesting. Commissioners, any questions of
11	Mr. Wilson? Commissioner Mitchell.
12	COMMISSIONER MITCHELL: How you doing, Mr.
13	Wilson? You spoke a little bit about solar and
14	wind power. Do you think must utilities provide
15	generation sources from solar and wind power when
16	there's low output? Should they should they
17	with low solar and wind output, should there be any
18	timeframe where it's mandatory, I guess, is what
19	I'm asking, when solar power might be low and wind
20	might not be blowing, should they provide at that
21	time? Or what is your solution?
22	MR. WILSON: So you're saying Commissioner,
23	I'm sorry, I'm going to have to ask
24	COMMISSIONER MITCHELL: What I'm actually
25	saying is, certainly there are varying times of the

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year that solar is more prominent than other times, and that wind is more prominent than other times.

MR. WILSON: Yes.

commissioner mitchell: What I'm asking you is, if it is that certain period of the year, generally, in a certain area that production is high or low, should the utilities be forced to provide that source if it's a low scale that they're producing.

MR. WILSON: No, Commissioner, I don't think that a utility should be required to deliver solar energy or wind energy when the sun is not shining and the wind is not blowing. I think that what we're suggesting is that the proper way to look at these resources is, first of all, in the context of a resource planning process, where you can see what the benefits are of operating those power plants on the system, and how they can fit in with other resources. I think that, you know, some people would like to see us move to an all-solar-and-wind grid, and I have not seen an analysis that would convince me that that could be accomplished. I think that's very unlikely. But I think that solar and wind can play a very substantial part in the annual energy delivery that the utilities need to

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do, to meet the customers' needs in a reliable manner.

COMMISSIONER MITCHELL: Thank you. And the same thing -- and I notice we have even had reports that have certainly changed my perspective a little bit, because we've had reports recently of certain wind production that is becoming viable -- a viable source at a viable price. And you might have not -- might not can answer this question, but how do you propose that these utilities -- they're out there serving the public every day, and certainly there is guite a bit of political pressure at certain times for them, in opposition to renewables, and wind and solar. How do they deal with that? Do you have any type ideas you might could float? Certainly there are times when they have to deal with these things, and certainly there's times I'm sure when the public is favorable Do you have any ideas for them? to these.

MR. WILSON: Well, we certainly -- Southern
Alliance for Clean Energy has been involved in this
issue for many years. We've been working with
local -- for instance, we are involved with wind
working groups, is a concept we've been involved
with and have done that both in the mountains and

1	on the coast, where we've worked with local
2	organizations and citizens to deal with their
3	concerns about these resources. We try to take a
4	very balanced approach to these resources. We
5	don't want to see, you know for example, in
6	North Carolina one of the big issues is, you know,
7	are we going to put windmills on the Blue Ridge
8	Parkway? You know, we're not supportive of that.
9	I think that would be a huge mistake. But there
10	are places in the North Carolina mountains, for
11	example, where our organization views it as
12	something that, if the local folks want to do it,
13	that it might be appropriate; and there's certainly
14	local support for that from certain areas, to
15	develop project in those areas.
16	So it's not something you can sort of apply a
17	blanket answer to. You've got to deal with it on a
18	very case-by-case basis. But we see really
19	enormous resource potential there. Not you
20	know, for example, Southern Alliance for Clean
21	Energy and I know Coastal Conservation League is
22	also very involved in offshore wind project
23	studies. And the wind resource out there is very
24	strong, and can provide a really huge resource.
25	And we've looked at some of the economics of that,

1	some of the transmission issues that come up with
2	that. There's a lot of work to be done, and I
3	think what we would like to see and what we you
4	know, what we've spoken to the utilities about and
5	asked them for their partnership on is to really
6	dig into those resources to figure how can we
7	develop those resources in a cost-effective manner,
8	how can we get the process started? We don't know
9	where the costs are going to go when we finally
10	start building those resources out, because there's
11	just not the experience with it. And so we're
12	going to have to do analyses and pilot projects and
13	really kind of do a very stepwise, you know, the
14	question is do you try to get all your answers
15	questions answered before you start, or do you try
16	to work through this in a methodical way.
17	COMMISSIONER MITCHELL: Well, you just
18	answered my next question. I think you pretty much
19	touched on everything. My next question was, how
20	do we build the infrastructure where areas of
21	abundant supply of solar and wind are, and get them
22	to other areas. And you touched pretty much on it
23	there. Is there anything else you'd like to add?
24	MR. WILSON: Yeah, sure. The other
25	opportunity that I think is really intriguing, and

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when I first heard about this I was -- I didn't pay too much attention, and I'm a big clean energy advocate, so I can imagine that you may be even a little bit more skeptical than I was at that point. But there is the opportunity to bring wind all the way from western Oklahoma and those regions of the country, bring that energy into really the entire

And right now there's a company that's looking at building HVDC line from western Oklahoma to Memphis to bring it onto the TVA grid. And, you know, there -- it is not out of the question that you could cost-effectively build HVDC lines that would come all the way from the Great Plains into the heart of the Southeast and deliver power onto the grid at very substantial levels and costeffectively today compared to existing supply-side resources, or -- or, excuse me -- supply-side resources that you could build at today's costs. It's frankly kind of astonishing to me that you could move electricity that far with relatively little line loss and at a relatively low cost. And I've seen the numbers and they seem to be backed up by reputable experts, and I think it's a really interesting opportunity.

So, you know, those are maybe a little bit long-term things, but that's what a resource plan is, is you look at ideas that maybe could take place in 10, 15 years, and you start trying to figure out whether it makes sense to go down that road.

COMMISSIONER MITCHELL: And my last and final question is, are there factors out there that you feel that certain areas of the country might be more abundant in renewable supply that would lead those citizens to embrace energy efficiency more readily than a state like South Carolina? Or do you feel those exist?

MR. WILSON: Well, I do believe that there are abundant renewable energy resources in the Southeast. They have a different character and they require different answers than you would get if you were in Oklahoma or Kansas or even Illinois. I think, yes, so they are different. Are they less abundant here? I would have a hard time -- I would have a hard time agreeing with that statement, but I think it's in context. I mean, the timing of -- I mean, the solar energy, for example, is much more abundant here in the Southeast than it is in the Upper Midwest, but people are investing in it up

1	there cost-effectively. So I think that's an area,
2	for example, where we've got greater resources. In
3	terms of energy efficiency, you know, another
4	resource, I think that is equally abundant in the
5	Southeast compared to the rest of the country. The
6	resource is different. You can't run the same
7	program you would run in Detroit, in Charleston;
8	it's going to be a different energy efficiency
9	program. But when you look at the underlying
10	numbers, there's no reason to think that we can't
11	do as much in South Carolina as someone is doing in
12	Iowa, on energy efficiency, and I think that's
13	where you can really look for, you know, local
14	innovation and a locally styled program but meeting
15	national standards.
16	COMMISSIONER MITCHELL: Thank you, very much.
17	Thank you, Mr. Chairman.
18	CHAIRMAN HOWARD: Commissioner Hall.
19	COMMISSIONER HALL: Thank you, sir.
20	Good morning. Glad to have you with us, this
21	morning. I wanted to ask a few more questions
22	about your energy efficiency portion of your
23	presentation. Now, you were talking about South
24	Carolinians versus Iowans. One of the things that
25	we have in South Carolina is a large number of

1	mobile homes. How does that contribute to the
2	energy efficiency opportunities? I mean, is it
3	limiting? And just is it
4	MR. WILSON: I'm aware of
5	COMMISSIONER HALL: I'm
6	MR. WILSON: that.
7	COMMISSIONER HALL: curious as to
8	MR. WILSON: Yeah.
9	COMMISSIONER HALL: how
10	MR. WILSON: No, that is a very significant
11	issue, and I think I don't have a quick answer
12	for you on that.
13	COMMISSIONER HALL: I don't think there is
14	one, probably.
15	MR. WILSON: I don't think there is one. But
16	we you know, one of my colleagues, Natalie Mims,
17	has been working directly with some of the folks in
18	South Carolina on program design. That's an area
19	where we would like to work with the utilities to
20	develop better programs. And, you know, if I may
21	refer back to the merger settlement, what we have
22	agreed to do with the utilities and what I'm
23	very excited about is that there's, you know,
24	we've now sort of set this very ambitious goal of
25	energy efficiency targets as something the

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utilities are going to try to move towards. process for that is we have to come up with the programs that you, Commissioners, will approve and agree are in the interests of customers, and I would hope that that would be an area where we would really dig in and work on that. It may require -- I think it's going to require two things. One is, we have to figure out how you approach the customers who are in mobile homes, to interest them in energy efficiency. They've got a specific set -- you know, if they're renting the mobile home versus owning it, that creates a very different set of questions about how they're going to invest in energy efficiency. Then you've got the technology issues. It's much harder to go in and add insulation, obviously, to a mobile home, versus someone's attic that maybe doesn't have adequate insulation.

I think a lot of these things can be overcome

-- and I'll use an example of something outside the
mobile home area, which is that we've been really
pleased with the impact of Progress Energy's
efforts on low-income programs with this community
based program, the Neighborhood Energy Savers I
think is what they call it. And it's really one of

1	the best program models in the country for reaching
2	low-income customers. It's a really great design.
3	It's very cost-effective. In fact, you know, in a
4	way, that program is so cost-effective I kind of
5	wonder whether they should just kind of ease back
6	or eliminate some of the income restrictions and
7	look at expanding that approach as a more general
8	program design. But that's something to talk to
9	them in a little bit more detail, so I don't want
10	to, you know, say that's definitely where we should
11	go. But I do want to say that that kind of
12	rethinking of the premise of these programs changes
13	the whole equation. It's not just simply about do
14	we need to spend more money; it's how do you
15	communicate with people and share the knowledge you
16	already have with them, and solve the problems
17	"You know, my landlord won't let me do this." How
18	do you change that dynamic? Those are really tough
19	questions, but until you've got people who say,
20	"Okay, we're going to solve those questions,"
21	you're not going to get to the answer.
22	COMMISSIONER HALL: Okay. Along those lines,
23	a lot of it is behavioral-based, so what is your
24	attitude towards what customers will do beyond the
25	easy things like replacing light bulbs, and once

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the government subsidies have expired? What do you anticipate customers doing?

Well, I think a lot of that MR. WILSON: perspective comes from the residential side. I think the -- but keep in mind that a large portion of the energy resource is on the commercial and industrial side. And that's one of the areas that I think -- you know, for example, that last slide I showed about the economic modeling, making the economies of South Carolina and other southeastern states more competitive by helping businesses become more energy efficient, that's a huge win. And in a lot of cases, what we find is that the companies don't need so much, you know, just to do the easy things; sometimes it's process redesign, and sometimes what they haven't done is thought about it from an energy perspective.

Small to midsize enterprises may not have a full-time energy manager on staff. And what I've seen some other utilities do in other parts of the country is basically say, "Fine, we're not going to help you pay for your energy savings, but we're going to put somebody in your plant for a year to help you think through how you can redo your process in a more energy efficient way, and come up

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with ideas that you never would have thought of because that's not your expertise." That may put that business in a whole new direction, save jobs, add jobs, and change and transform the economy. So I think there's a lot of different ways to approach these problems.

The other thing, going back to your question about lighting, you know, you may think that sort of in a few years we're going to change out all the light bulbs, but I've seen projections from utilities in the Southeast that suggest that light bulbs -- that residential lighting will continue to be a savings opportunity for more than a decade, and that utilities will have a role in helping with The lighting standards that are going into effect next year, perhaps without enforcement -we'll see how all that works out -- but those standards that are going into effect, they only affect a very specific portion of the residential lighting market. A lot of the light bulbs that are on the market remain unregulated next year. regulations ramp in over a few years, and even then they don't cover all of the light bulbs in the So I think it's important to recognize that it's still a very dynamic market out there, and

1	even once those regulations are in place and being
2	enforced, they only set a certain threshold, and
3	there are energy saving opportunities well below
4	those thresholds that the utilities can help
5	customers to achieve.
6	So I think there's a lot of opportunity there,
7	and it's over a diverse range of things, and I
8	think that positioning the utility to think in that
9	way is going to be good for everyone.
10	COMMISSIONER HALL: Thank you. Thank you, Mr.
11	Chairman.
12	CHAIRMAN HOWARD: Commissioner Whitfield.
13	COMMISSIONER WHITFIELD: Thank you, Mr.
14	Chairman.
15	Good to have you with us, this morning, Mr.
16	Wilson. I want to talk to you a little bit, if I
17	could, about fuel. I guess first I want to ask you
18	a question about coal. Particularly since
19	emissions have been drastically reduced and
20	continue to be reduced with scrubbers, SCRs, and
21	the clean coal technology that's on the horizon,
22	and of course with us being so dependent on coal
23	for base-load generation, do you think the US
24	should turn back its reliance on coal? Or what's
25	your opinion there?

MR. WILSON: Well, you know, I don't think that we addressed that issue in our comments on the resource plan, so I'll speak for myself and for the Southern Alliance for Clean Energy in response to your question, because we didn't get into that level of detail.

We would like to see coal eventually phased out, I think, or at least moved to a situation where you can do carbon capture and sequestration. We're very concerned about the impact of carbon dioxide emissions as a greenhouse gas on climate and the implications for that in terms of quality of life and our economy and the many effects that it's going to have over the next century. And so, but we understand that you can't just simply do that tomorrow. You know, it is not our recommendation to anyone in the Southeast, in any context, that we simply shut down coal plants tomorrow. We've got to think through this in the correct way.

COMMISSIONER WHITFIELD: Looking at the near term, if you will, let's talk about natural gas, if we could. Are natural gas units the only practical solution to satisfy short-term supply-side generation needs?

1	MR. WILSON: Well, you have phrased the
2	question, Commissioner, in a supply-side generation
3	form, and I think that's certainly one of the
4	quickest resources to bring on. I think energy
5	efficiency is a resource that could be deployed
6	more rapidly and more effectively on the demand
7	side. I think also you can increase the efforts on
8	solar energy. Wind energy takes a little bit
9	longer to develop than solar energy; you've got to
10	sort of go through the proper studies and siting
11	and that sort of thing, so but I think, you
12	know, to the extent that more resources are needed
13	in the short term, gas is a pretty attractive
14	option.
15	COMMISSIONER WHITFIELD: Let me stay on
16	natural gas a little bit, if I could, while we're
17	on it. Does it make sense to divert natural gas to
18	an inefficient use instead of retaining the
19	majority of direct uses where it's more efficiently
20	used?
21	MR. WILSON: No, sir.
22	COMMISSIONER WHITFIELD: Okay. I didn't know
23	if you needed an example on that, but anyway, you
24	feel no there. Are you concerned with the long-
25	term, low-cost availability of shale gas, in light

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of the possible environmental controls and increased foreign demand on it?

MR. WILSON: We've been looking at the -again, I'm speaking for Southern Alliance for Clean Energy here, because these issues weren't addressed in our comments -- and we have been looking at the issues around shale gas and its development, and we haven't, to be quite honest, reached a full opinion on that. There's a lot of information in the news media and studies that we've been sort of taking under advisement. I have a pretty good understanding of the process known as fracking, for example, and understand that some of the concerns about it are probably more closely related, you know, really just sort of how the process sounds. But then, on the other hand, when you look at onthe-ground impacts, you realize there are some real management issues surrounding the development of shale gas, using the fracking technology. a lot of chemicals involved, there's a lot of greater risk of groundwater contamination if the conventional techniques of casing wells are not properly applied and tested and so forth. an issue that we are looking at real closely. far, we haven't seen anything to suggest that the

opportunity for domestic shale gas to play a substantial role in near- to mid-term energy resource needs is off the mark, but I don't know that I can really give you a complete answer to your question.

COMMISSIONER WHITFIELD: To that end, to that potential, you're referring to, that natural gas might play, are you concerned that sufficient infrastructure might not exist to move natural gas from new sources to the sites of the new generation facilities?

MR. WILSON: Well, Commissioner, again speaking for Southern Alliance for Clean Energy, we looked at that issue to some extent, but we haven't formed a full opinion on that question. I think it's a very relevant question, so I want to say, you know, I think that's something that has to be looked at. But it doesn't seem to me that that's an insurmountable problem going back to the point about transmission, you know, opportunities, speaking from maybe Oklahoma all the way to the Carolinas perhaps with a DC line. That seems sort of almost implausible, you know, kind of, in its scale, and yet when you look at the details, it turns out to be not that hard compared to some

1	other projects and things that are being considered
2	seriously in this country. So I think that I would
3	look at it from that perspective, as well, in terms
4	of the gas pipeline issue.
5	COMMISSIONER WHITFIELD: Thank you, Mr.
6	Wilson. That's all I have, Mr. Chairman.
7	CHAIRMAN HOWARD: Commissioner Hamilton.
8	COMMISSIONER HAMILTON: Thank you, Mr.
9	Chairman.
10	How are you, Mr. Wilson?
11	MR. WILSON: Fine, thank you very much.
12	COMMISSIONER HAMILTON: Mr. Wilson, are you
13	aware that the NRC is apparently prepared to issue
14	the combined license for the proposed Duke Vogtle
15	unit in Georgia, and also the Summer unit in South
16	Carolina?
17	MR. WILSON: Commissioner Hamilton, I'm
18	generally aware of that. I will say that I did not
19	much of the comments on the nuclear perspective
20	that I've related to you were developed by other
21	staff, and I am not as on top of the nuclear
22	portion of the comments and the timing and cost
23	uncertainty issues as perhaps other people might
24	be.
25	COMMISSIONER HAMILTON: I see. You might also

1	like to be aware of the fact that the Summer plant,
2	the cost estimates have either held firm or have
3	been below the original estimates for the costs.
4	MR. WILSON: I have seen some news reports to
5	that account. And I understand there are some
6	questions about that, and I frankly am not I'm
7	not up to date on that. I haven't looked at those
8	issues for a couple of months.
9	COMMISSIONER HAMILTON: Thank you, sir.
10	CHAIRMAN HOWARD: Commissioners.
11	VICE CHAIRMAN WRIGHT: Mr. Chairman.
12	CHAIRMAN HOWARD: Commissioner Wright.
13	VICE CHAIRMAN WRIGHT: Well, still good
14	morning. I know you're familiar with the
15	Bonneville Power Administration decision. Do you
16	have any comment I guess, personally, I guess,
17	any comment on FERC's ruling that environmental
18	dispatch is discriminatory?
19	MR. WILSON: It's an intere Commissioner,
20	so, as I understand what you're referring to is
21	that Bonneville Power Administration decided to
22	order curtailment of wind over the objections of
23	those generators in order to allow other resources
24	to continue to run on their system, and FERC
25	basically said that that arbitrary decision was

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discriminatory.

VICE CHAIRMAN WRIGHT: Correct.

MR. WILSON: And what I think it goes back to is exactly the issue that I was raising on the slide on wind, which is that wind curtailment has value. And I think that you can sort of look at that as actually a -- I view it as a very positive ruling, because I think what it says to Bonneville Power and to other utilities is that, when you're contracting with wind resources, you need to recognize that the ability to ramp down quickly has benefits to the system, and that if you want to use those benefits, you should pay for them. So I -you know, it needs to be structured into the contracts that this sort of curtailment is going to It probably is a responsible decision operationally to ramp those wind resources down in the circumstances, is my understanding. What you need to do is make the contracts and the financial arrangements around those resources reflect the fact that that is -- you know, by making those the preferred resources for ramp-downs, that the people who are delivering that resource need to be paid for that. And that may affect other aspects of their compensation, and so be it. But that's the

perspective I would take on it, is that that's a positive ruling, and it says this is a valuable resource; let's not just sort of take that value from those generators without compensation.

VICE CHAIRMAN WRIGHT: I always enjoy, from just being from the Commissioner's side of things, that we get to hear perspectives and different perspectives on the same thing. Just from your position, sometimes I hear some things that you hear on the utility side, but just explained a little differently, so I appreciate hearing the way you outline some of this stuff. It just makes you think.

And to that end, the REMI Policy Insight model, if you could give me a little bit more detail, maybe a little more insight of how the REMI model would be an improvement over what the utilities are currently using.

MR. WILSON: Thank you, Commissioner. I would not suggest to the utilities that they replace anything they are currently using with the REMI model. What it is, is it is a model that looks at energy policy choices and gives you an opportunity to compare the economic benefits. Right now, the utilities do not present that kind of information

in any form in their resource plans. There's no projections of jobs under Plan A versus Plan B; there's no projections of overall economic impact. It's just not an issue that's been addressed. And I understand why that is; I'm not saying they're being clever or deceitful or anything negative. It's just that they've been focused on customer rates and reliability, and the models they have are designed to address those questions. This is an additional area of investigation that we would like to encourage the utilities to look at and consider.

And for example, in the Tennessee Valley
Authority resource plan, one of the TVA statutory
mandates as a federally established power authority
is to look at the economic impact of its system on
the region. So, in that case, there was a very
clear statutory directive, and so they used a
version of the REMI Policy model and some other
tools to look at economic impacts. It was a fairly
limited effort in the last resource plan, but I
think there's a commitment from the TVA leadership
in the next resource plan to do it a little bit
better and in more depth. At least, that's my
impression. And so, I think that's an opportunity
for the utilities that are, I think, very keenly

1	interested. They've always had an interest in	
2	economic development. They have typically pursued	
3	that from the point of view of, you know, "How can	
4	we attract businesses and industry to the State	
5	with low rates," and that's certainly a valid	
6	perspective. What I think the REMI Policy model	
7	would point out is that when you're making resource	
8	choices, that also attracts suppliers and	
9	businesses that are helping to deliver those	
10	resources to the State. And energy efficiency, for	
11	example, is the most job intensive and the most	
12	locally sourced resource that's available. And so,	
13	certainly from the perspective of the resources	
14	that we are encouraging the utilities to put more	
15	emphasis on, you know, that kind of a model	
16	analysis is going to give an illustration of the	
17	impact of that on the economy, and that's going to	
18	be a good thing for the economy and a good thing	
19	for the utilities to talk about.	
20	VICE CHAIRMAN WRIGHT: You had a conversation	
21	earlier with Commissioner Hall where you were	
22	talking about the income issues among South	
23	Carolinians as opposed to maybe the Southeast and	
24	rest of the country mobile homes and how is	
25	it possible for low-income families, especially	

1	those who are the ones who are in the mobile
2	homes that we're talking about, how do they
3	participate? You know, how can they participate in
4	energy efficiency or anything else in today's
5	economy? You know, that's a difficult nut to
6	crack, and I appreciated the conversation you had
7	with her. But are the utilities you're not
8	saying that they're I don't I'm going to use
9	the word "misguided" here but that's not what I
10	mean. When you're saying, right now with the
11	economy the way it is, low rates are important,
12	especially in a state like South Carolina today,
13	and reliability is very important, too, so when
14	you're talking about other resources and bringing
15	in wind or solar, that obviously comes at a cost,
16	so where are you saying we draw the line or to look
17	at drawing the line on those, you know, in
18	incorporating those, from a Commissioner standpoint
19	and even from the utility standpoint? Because I
20	appreciate what you're saying, and I hear it, and
21	in a perfect world, you know, maybe I'd say you're
22	absolutely right, but today's economy is kind of
23	tough.
24	[Discussion off the record between Mr.
25	Wilson and Mr. Holman]

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MR. WILSON: Yeah. And, Commissioner, my attorney is reminding me that I, of course, am not in this setting in a position to give you a recommendation, so, I think what I would respond with is just to describe sort of some of the best practices that are out there. And I think, first of all, we've seen in the presentation from an efficiency point of view that we view the efficiency resource as one that can be delivered at a cost savings and even a rate savings to customers. That may not be true on every day of the week and on every day of the year and every year over the planning horizon, but it is a generally consistent approach. I think it's developing the innovation to figure those things out, I think -- what I think -- the reason I think what we are asking for from the utilities is so challenging, you know, we have a challenging job in that we need to articulate what we want very clearly from the utilities; and they have a very challenging job in that if they are going to respond to us, it requires them to do a lot of new things in a lot of different parts of their companies.

I know that there's staff here from both the

efficiency program, the delivery side of Progress Energy, and the resource planning side of Duke Energy. They both have to innovate planning practices and program delivery practices at the same time, in order to deliver these resources, because over the twentieth century we developed a lot of regulatory and planning processes around utilities that were designed to build out the system. It was a very growth-oriented planning and regulatory model, and I think that there is a lot of deference to that because it was a very successful model.

But in this century, I think what we've got to recognize is that we are not -- we don't have to build out the electric system; what we need to do is make it an engine that transforms the economy in a way that's constructive for people, in the same way that building out the system transformed the economy in a way that was good for people. But now we're talking about a new economy that's needed for a new era. And I think that that -- that thinking through regulation, planning, program delivery in a very new way is challenging, because it says we're not going to do things the way it worked so well for so many years. And I think there's going to be

a lot of hesitation about that. 1 So where would I draw the line? I can't say 2 that there is a planning practice out there that is 3 ready to take off the shelf and say, "Here are all 4 the answers." But what I can say is that if the 5 utilities don't become more aggressive, creative, 6 and thoughtful in responding to the challenges that 7 we are facing before us, and they keep doing the 8 same old things, I can tell you that that will not 9 be to the best result. And that's the best answer 10 I think I can give you to that. At least, 11 hopefully, it's a halfway satisfactory answer, 12 13 Commissioner. 14 VICE CHAIRMAN WRIGHT: Well, I do agree with 15 you that the -- I believe you said -- I think it's Progress's plan that the low-income -- I mean, it's 16 a labor-intensive, grassroots plan to try to help. 17 18 I do agree with you that that is a model worth 19 pursuing. And, you know, in other utilities across 2.0 the country it's even more aggressively than in our State. You know, I like it. 2.1 22 MR. WILSON: Yeah. VICE CHAIRMAN WRIGHT: 23 Thank you. MR. WILSON: Thank you, Commissioner. 24 CHAIRMAN HOWARD: Commissioners? 25

1	[No response]
2	Mr. Wilson, I've got a couple of questions.
3	On your chart on page four, "Top 10" state?
4	[Reference: PowerPoint Slide 4]
5	Could you identify, is that just one state? I
6	thought you said that was the #10 state? Could you
7	identify that state and give me approximately what
8	their current rates are per kilowatt-hour?
9	MR. WILSON: Commissioner, I can't recall that
10	at this exact moment. I can tell you that that
11	information is in that report that's cited there,
12	and that will be in our response to the meeting of
13	the requirements of the ex parte that all the
14	information that we refer to is there.
15	The way that I generated that line and it's
16	just simply indicated to be a reasonable
17	representation of what the leading states are is
18	that I took the target for the tenth highest state
19	on ACEEE's list and annualized it and averaged it
20	out, so it's representative of, really, any state
21	in maybe the rank seventh through fifteenth or so,
22	would be a reasonable way to present that.
23	CHAIRMAN HOWARD: Okay.
24	MR. WILSON: And I have looked at the rate
25	issue, so if I can respond to your question maybe

Ex Parte SACE/SCCCL/UF with a slightly different answer than you were asking for -- if that's okay with you, Mr. Chairman. CHAIRMAN HOWARD: Sure. MR. WILSON: We did an analysis looking at rates versus rates -- electric rates in states versus energy efficiency savings of the states, and we found that there is little to no correlation between those two outcomes. If there is any correlation, it's very slight and it's driven by the fact that a few states with very high electric rates -- like Hawaii or California -- tend to have among the highest results. But once you look down at the middle range, there are states with rates

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Carolina has performed in the past. There are states with rates comparable to South Carolina or a little higher, that are doing far more energy efficiency. So we're not seeing -- there is certainly a

that are lower than South Carolina, frankly, that

are doing far more energy efficiency than South

relationship between electric rates and the opportunity and the interest of customers in pursuing energy efficiency, but there are other reasons besides cost and rates that really are at

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1	the heart of why people don't do what's in their
2	own economic self-interest, and I think that's
3	really what's at the heart of your question is, you
4	know, do people who have electric rates that are 15
5	or 20 cents a kilowatt-hour have more interest in
6	energy efficiency than people who have rates at 7
7	to 10 cents a kilowatt-hour? And the answer is,
8	yes, but it's not as relevant a question as you
9	would think.
10	If you're a tenant in a commercial building
11	and forgive my ignorance that I don't know whether
12	the State of the South Carolina owns this building

and forgive my ignorance that I don't know whether the State of the South Carolina owns this building or not. If the State of South Carolina is leasing this building, it has less interest in investing in energy efficiency in this building than if it owns it.

CHAIRMAN HOWARD: Right.

MR. WILSON: And that's a significant issue, regardless of the electric rates. And when you look at someone who owns a restaurant with a three-year lease on their space or someone who maybe is leasing the equipment that they operate in a manufacturing facility, that creates very significant incentives for them to not invest in energy efficiency because, you know, they don't get

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to keep the savings over time; somebody else owns
those savings, they don't.

CHAIRMAN HOWARD: The situation of the

grandmother subsidizing other energy-efficient points, should the grandmother pay more to subsidize energy efficiency proponents?

MR. WILSON: Well, first of all, as I pointed out at the beginning, I don't think that grandmothers are likely to subsidize other people's energy efficiency efforts, because I think that the rates are likely to go down. But if the utility comes back with a plan that results in, say, slightly higher electricity rates than they would have with a supply-side dominated plan that involved building more power plants, first of all I'd be surprised, but second of all, if that were to happen, keep in mind that -- well, let me phrase that question -- let me phrase that opening a little different way. I think sometimes rates will go up. The question is, will they go up as much as they would have with the supply-side resources. yes, the grandmother may be paying into a fund for someone else to save energy, but that's better than paying into a fund to build a power plant that costs more than those energy savings. So from her

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own financial interest, I think she should be very happy that the utility is finding the cheapest way to operate its system. And even if that means going in and helping a neighbor save energy, that is in her interest.

I think where you get this issue more sort of acutely and where you all will hear it a little bit more sharply is on the industrial side, and where you get this concern that, you know, "My rates are going to help the guy down the street who is my business competitor." And I think there's a kernel of a valid point there, but I think that it's so easy to focus on sort of that raw competitiveness that what many people in the industrial and business community forget is that many of their competitors are also their business partners, or many of the other businesses on the system are their business partners, and it is in everyone's interest, if Blan here -- Mr. Holman here -operates a manufacturing plant on the side -- and I don't think he does, but he may want to next year. You know, he may be a competitor with one of the folks sitting in the room, but they're both suppliers to another business in South Carolina. And that business in South Carolina is comparing

1	their costs with the costs to do business with a
2	company in China or Europe. And that helping
3	Mr. Holman and his competitor both cut their energy
4	costs is in the interests of that other business in
5	South Carolina, as well, and reduces their costs
6	and helps everyone keep jobs and businesses and the
7	economy strong here. So I think that that broader
8	perspective is one that gets a little bit lost in
9	sort of this cross-subsidization/fairness debate.
10	And I would encourage you to kind of I know I'm
11	not supposed to make recommendations, so I'm going
12	to phrase this in a different way. I would say
13	that the approach that should be taken when
14	thinking about these questions is as broad and as
15	public-interest minded as possible, and I think
16	that that is the State's interest.
17	CHAIRMAN HOWARD: The pending and I say
18	"pending"; it might already have happened. The
19	pending EPA regulations, in particular on
20	emissions, coal ash ponds, what is your thought on
21	these regulations and how does your organization
22	tie it into what the cost would be to the
23	ratepayers to implement these regulations? And
24	where is the breakeven point or the optimum point,
25	or how does your organization look at that?

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MR. WILSON: Well, Commissioner, Mr. Chairman, that was a question we did try to look at as we analyzed the utilities' resource plans. And first of all, there's not enough information in their analysis for us to reach sort of a definitive answer to that. But if you'll indulge me for a second, I'll tell a little bit of a story that relates to that.

Our organization, Southern Alliance for Clean Energy, had been pushing the Tennessee Valley Authority for several years to do an integrated resource plan, and we'd been speaking with senior management and board members about that for several years. And they were fairly noncommittal, would be maybe the best way to say it, in response to us. And then the Kingston coal ash disaster happened, and you saw this massive failure of a containment facility that caused a lot of damage. And fairly quickly, the senior management at the Tennessee Valley Authority understood that the underlying cause of that disaster was a focus on short-term cost control and not on long-term resource management. And I think -- and at that point, they recognized that a response to that was to perform an integrated resource plan that began to look at

1	the overall costs and risks associated with the
2	resource choices that they had made in the past and
3	the ones they might be making in the future. And
4	it would seem to, probably, many outside observers,
5	that drawing a line from a coal-ash containment
6	failure to an integrated resource plan is a pretty
7	long and vague line to connect, but I can assure
8	you from conversations that I've had and that my
9	colleagues at Southern Alliance for Clean Energy
10	have had with senior management there, that that
11	was a connection that they made; it was a very
12	short and a very clear line. And I think that that
13	is why these questions we are asking and that I
14	have presented to you today are very relevant
15	questions for the utilities to consider in their
16	resource planning process.
17	You know, looking at more deeply these
18	scrubbed coal units and the risks associated with
19	continuing to operate those, the cost implications
20	of upgrading them or not upgrading them, it's not
21	you know, when EPA establishes these
22	regulations, they do extensive cost-benefit
23	analyses on these regulations. And it's my
24	understanding I haven't read all of those
25	analyses that they are very cost-effective

1	regulations when you look at the benefits compared
2	to the costs of either meeting those regulatory
3	requirements or finding alternative resources. And
4	I think that those analyses should not be sort of
5	dismissed as kind of just paperwork, but you should
6	recognize that those are an indicator that if the
7	utilities begin to build those kind of cost
8	considerations into their resource plans, they're
9	going to make different decisions than if they
10	don't consider those costs, and that's why a
11	broader look at costs and impacts of resource
12	planning decisions is very much in this State's
13	interests and very much in keeping with, I think,
14	the mission of this Commission.
15	CHAIRMAN HOWARD: Okay, thank you very much.
16	VICE CHAIRMAN WRIGHT: I have one.
17	CHAIRMAN HOWARD: Commissioner Wright.
18	VICE CHAIRMAN WRIGHT: I want to follow up on
19	that, just to get your opinion on something.
20	Health and safety, that's where I want to go. EPA,
21	and I just heard you talk about the regulations
22	and I'm not sure that you really answered the
23	question in the way that Commissioner Howard was
24	looking, but, you know, because if coal ash, for
25	example, is regulated as a hazardous waste, it's

one thing, and it's a huge cost, huge, and it's a big enough cost to comply with the regulation they're proposing. But you've got a whole lot -- a whole host of regulations that are coming down the pike, okay? We don't know, as we sit here today, what the true cost is going to be, how quickly those costs are going to be mounted, and then how quick recovery is going to be asked for. And at what point does EPA's concern about health and safety -- which I'm not saying is wrong; understand that -- but at what point is it too much too fast, or can the ratepayer afford to pay it, or not afford to pay it, because right now we've got a real problem in this country where people can't afford to pay their bills now and we're having to find other ways and other avenues for them to get help to pay their bills, if these regulations come through the way they're coming through -- they're talking about it -- and there's the competition for vendors and there's, you know, the rush to get all the stuff done? At what point does it become a health-and-safety issue on the other side when somebody can't pay their bill and a whole other group of people gets pushed to the edge or over the edge and it becomes a health-and-safety issue on

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that side where we're concerned, you know, when the power goes out and, you know, reliability is an issue, as well as cost? So where does the -- we're supposed to balance the needs of the utility and the customer and economic development without wrecking the economy. At what point is there an issue? Where does it become a problem? Have you looked at that? Is that something that you've considered at all?

MR. WILSON: Not in the -- perhaps,

Commissioner, not in the detail that you would like to see, but, you know -- I'll just be blunt -- we don't have the resources to build those kind of computer models ourselves, where you optimize and cross-optimize all of these different costs of all these different regulations. We're relying on our opportunity to review, through the regulatory process, the documents that the utilities put forward, and their cost estimates. And I think they have done some of that work on some of those issues.

And our opinion is that the environmental compliance costs, when you really look at them, are not so high that they're going to drive rates up to that extent. I think the important thing for the

utilities to do is to be very focused on building out some of these low-income or moderate-income efficiency programs that can help exactly those customers out, and so if they're seeing a 2 or 3 percent increase in rates based on environmental compliance costs -- and I don't know that that's the exact number, but it's my sense that that's the kind of order of magnitude we're talking about -then, you know, there's an opportunity for the utility to bring in an efficiency program that can help them cut their bills by 5 or 10 percent. And those programs, you know, we know they're running them and they can be scaled up and they can be very successful. So I think that's the way I would hope that the utilities would approach the balance issue, is to redouble their efforts to help people manage their energy costs.

It is certainly -- all of this is good for the utility's bottom line, because they have the ability to earn money on their efficiency programs, as well as on selling energy. So I think there's a sense that this -- from our perspective, that this problem can be resolved. But I recognize that the process you just described as sort of going through and balancing all these things is one that you all,

1	as Commissioners, have to do. My impression is
2	that the regulations are flexible enough to do
3	that.
4	I think one thing I remember from a different
5	professional experience was a complaint by a
6	different economic sector in a different state,
7	that the regulations were coming too piecemeal, and
8	they would kind of like to have them all at once;
9	they could deal with them all at once, and get it
10	all over with all at once. And now we've got a
11	situation where they're all coming in at once, and
12	they're saying, "Well, no, we'd rather have them
13	kind of piecemeal." So, you know, I've heard both
14	sides of this, and I don't think there is an
15	optimal way for these kind of issues to be
16	resolved, unless you can sort of be so insightful
17	and so such a great fortune teller that you can
18	solve all these problems in advance before they
19	even crop up.
20	VICE CHAIRMAN WRIGHT: Okay, thank you.
21	CHAIRMAN HOWARD: Commissioners?
22	[No response]
23	Office of Regulatory Staff. Ms. Hudson? Ms.
24	Edwards? I see Mr. Scott out there. I'll give him
25	a chance to speak if he wants to. Do you all have

1	any questions or comments?
2	MS. HUDSON: Mr. Chairman, I do not think we
3	have any questions. Thank you.
4	CHAIRMAN HOWARD: Thank you, very much, Mr.
5	Wilson. Thank you, very much, Mr. Holman. Thank
6	you all very much for coming. You can tell by the
7	questions your presentation was quite interesting.
8	Thank you very much, and this hearing is adjourned
9	and everyone have a happy holiday. Thank you.
10	[WHEREUPON, at 12:10 p.m., the
11	proceedings in the above-entitled matter
12	were adjourned.]
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CERTIFICATE

I, Jo Elizabeth M. Wheat, CVR-CM-GNSC, do hereby certify that the foregoing is, to the best of my skill and ability, a true and correct transcript of all the proceedings had in an allowable ex parte briefing held in the above-captioned matter before the Public Service Commission of South Carolina.

Given under my hand, this the 27th day of December, 2011.

Jo Elizabeth M. Wheat, CVR-CM-GNSC

ATTEST:

Jocelyn G. Boyd,

CHIEF CLERK/ADMINISTRATOR